

REMARKS

Claims 21-23 and 107-109 have been canceled. Claim 111 has been added. The claims remaining in the application are 1-20, 24-106, 110, and 111.

Drawings

Attached herewith is a copy of the formal drawings for this application as requested by the Examiner.

Figure 4 has been revised to correspond with the discussion in the specifications on page 9 relating to polarization orientation of the blue-green and the green light sources. No new matter has been added.

Claim Objections

The Examiner has cited several informalities in claims 8, 9, 24, 71, 72, 85, 93, 94, 108, and 109. These informalities have been corrected via amendment.

Rejection Under 35 U.S.C. § 112

The Examiner has rejected claims 16, 19, 21, 22, 23, 39, 42, 62, 82, 104, and 107 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. This rejection is respectfully traversed. These informalities have been corrected or the claim has been canceled.

Rejection Under 35 U.S.C. § 102

The Examiner has rejected claims 64, 74-76, 80-83, 85-86, 96-98, 102-105, and 107 under 35 U.S.C. 102(b) as being anticipated by Enomoto et al. (U.S. 5,982,407). This rejection is respectfully traversed.

Claims 64 as amended is clearly distinguishable over Enomoto et al. Claim 64 has an array comprised of a plurality of light sources wherein the array is comprised of four different color light sources. The number of light sources of each color is inversely proportional to a film sensitivity. This is not shown by Enomoto et al. In addition, the fourth color light source in Enomoto et al. is a white light. If the white light fourth color in Enomoto et al. were used in

the present invention it would expose all four color layers, thus rendering Enomoto et al. inoperable for a printer for a photosensitive media. To restate the fact, the Enomoto et al. device would not work in a printer for film.

With respect to claims 85 and 86, the claims as amended provide for sequential generation of each of the four color beams which is not shown in Enomoto et al. Therefore, these independent claims are also patentable over Enomoto et al.

The Examiner has rejected claim 110 under 35 U.S.C. 102(b) as being anticipated by Yamada et al. (U.S. 6,414,705 B1). This rejection is respectfully traversed.

Claim 110, as amended, is substantially different from Yamada et al. The amended claim includes the limitation "wherein said photosensitive medium is comprised of at least four photosensitive layers and wherein each of said four photosensitive layers are sensitive respectively to each of said first, second, third, and fourth color beams," which is not found in Yamada et al. In addition, Yamada et al. shows seven different color beams writing to a photosensitive medium comprised of only three photosensitive layers. The apparatus shown in Yamada et al. will not work since the seven different color beams would generate color crosstalk in each of three photosensitive layers shown in Yamada et al.

Rejection Under 35 U.S.C. § 103

The Examiner has rejected claims 1, 6, 10, 15-21, 24, 29, 33, 38-44, 49, 53, 58-63, and 108-109 under 35 U.S.C. 103(a) as being unpatentable over Kessler et al. (U.S. 4,728,965) in view of McQuade et al. (U.S. 4,956,702). This rejection is respectfully traversed.

A feature of the present invention that is described in detail with reference to Figure 4 and the specifications page 9, lines 1-14, is that the fourth color, in this case blue-green, is orthogonally polarized to the third color green, as the beams enter the x-cube. The reason for this may be seen by referring to Graph 1 and Graph 2, which are enclosed as exhibits with this amendment. Graph 1 shows the transmittance of the x-cube with respect to s-polarized light. It is seen that the color green, which is nominally 550 nm has good transmittance when it is s-polarized. The color blue-green, which is approximately 480 nm, if it is s-

polarized, will not have good transmittance as shown by Graph 1. If the blue-green wavelength is p-polarized, as shown in Graph 2, the transmittance will be good through the x-cube. Thus, a feature of the present invention not shown in the references cited by the Examiner is that the third and the fourth color presented to the x-cube must be of orthogonal polarizations.

The Examiner has rejected claims 2-5, 7-9, 25-28, 30-32, 45-48, and 50-52 under 35 U.S.C. 103(a) as being unpatentable over Kessler et al. in view of McQuade et al. as applied to claims 1, 24, and 44 above, and further in view of Hanson, Jr. (U.S. 2,763,549). This rejection is respectfully traversed.

The Examiner has rejected claims 11-14, 22-23, 34-37, and 54-57 under 35 U.S.C. 103(a) as being unpatentable over Kessler et al. in view of McQuade et al., as applied to claims 1, 24, and 44 above, and further in view of Okazaki (Pub. No. U.S. 2001/0022566 A1). This rejection is respectfully traversed.

The Examiner has rejected claims 65-73 and 87-95 under 35 U.S.C. 103(a) as being unpatentable over Enomoto et al. in view of Hanson, Jr. This rejection is respectfully traversed.

The Examiner has rejected claims 77-79, 84, 99-101, and 106 under 35 U.S.C. 103(a) as being unpatentable over Enomoto et al. in view of Okazaki. This rejection is respectfully traversed.

Dependent claims, which add limitations to independent claims distinguished from the prior art, are also believed to be patentable.

CONCLUSION

In conclusion, none of the prior art cited by the Examiner discloses the limitations of the claims of the present invention, either individually or in combination. Therefore, it is believed that the claims are allowable.

If the Examiner is of the opinion that additional modifications to the claims are necessary to place the application in condition for allowance, he is invited to contact Applicant's attorney at the number listed below for a telephone interview and Examiner's amendment.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'N. A. Blish', is written over a horizontal line.

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Enclosures: Replacement Figure 4
Annotated Sheet Showing Changes
Graph 1 and Graph 2 (Exhibits)
Letter to the Draftsperson
Formal Drawings

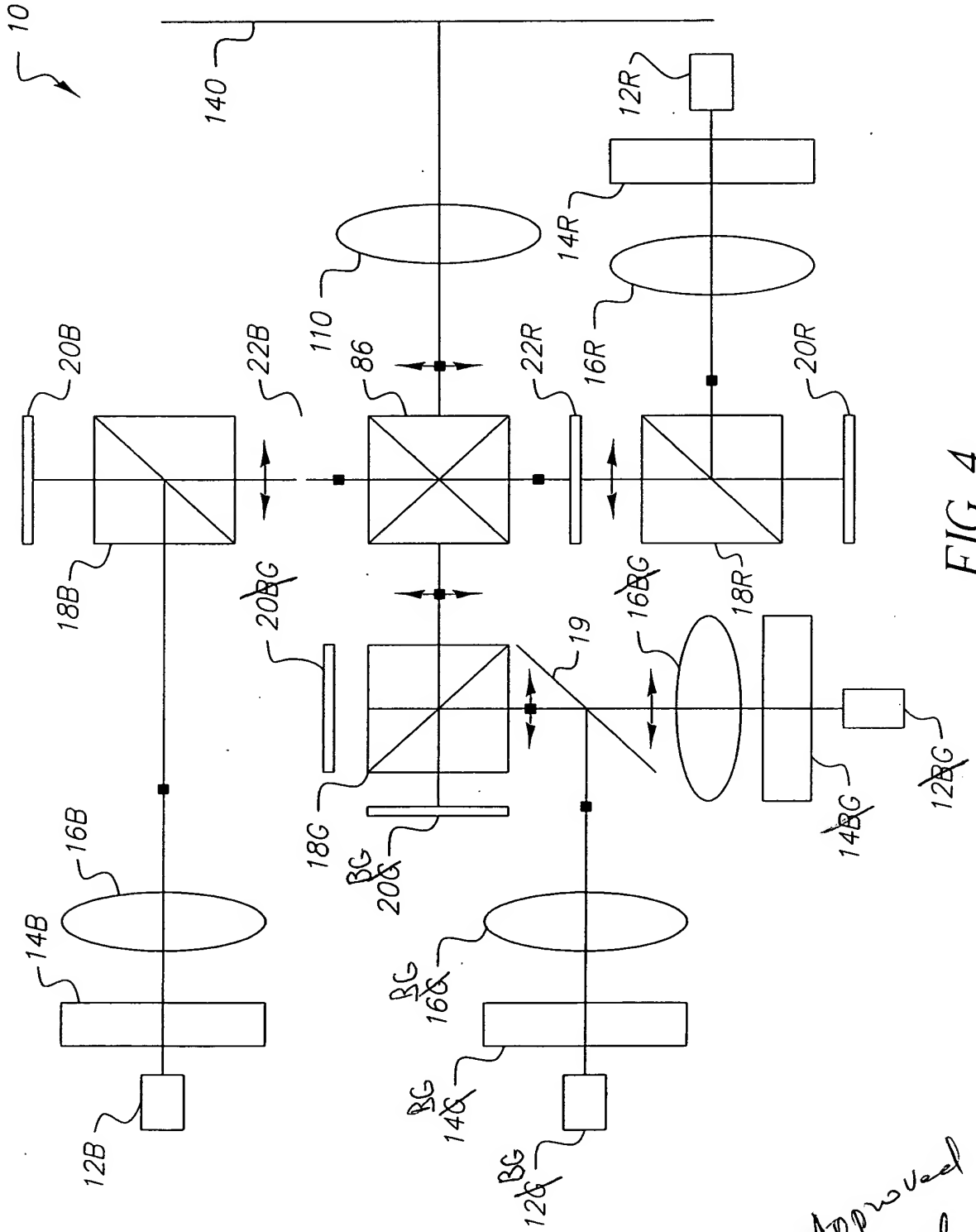
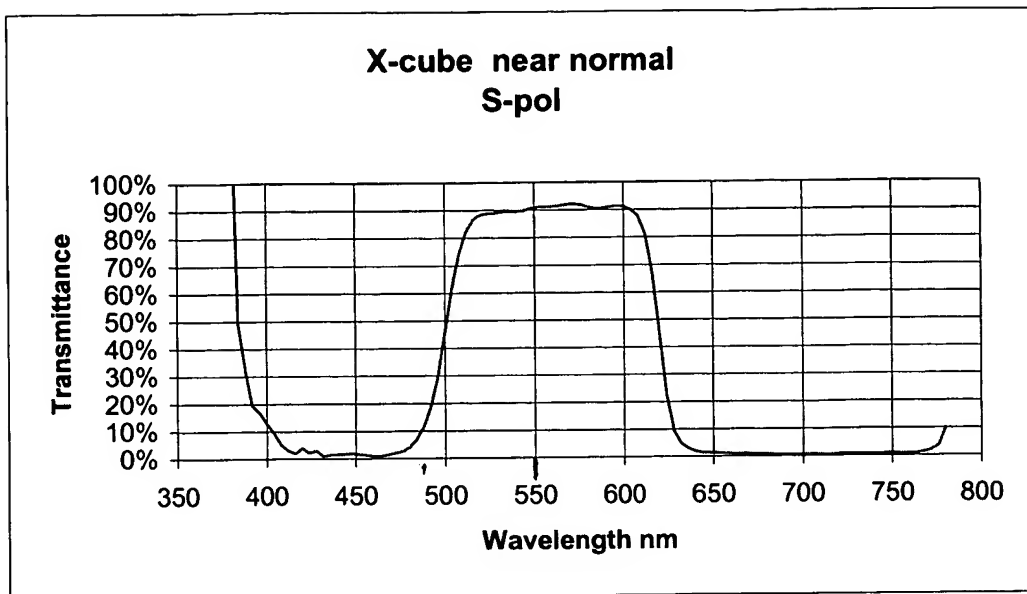
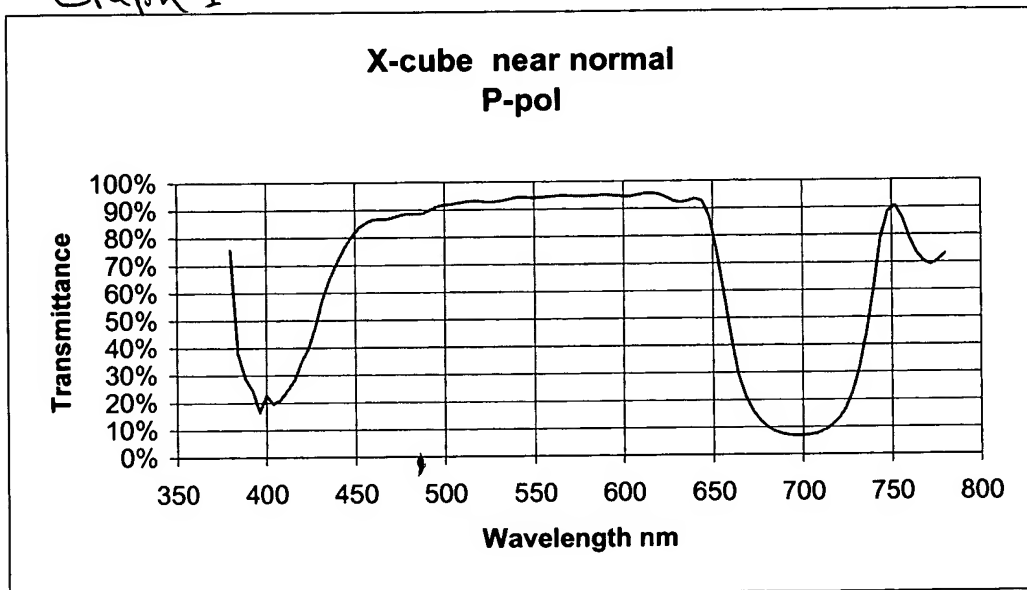


FIG. 4

Approved
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1/15/04



Graph 1



Want blue-green, 490nm to be p polarized

Graph 2